

**REMARKS**

By this Amendment, claims 3, 6, 8, 10, 11, 12 and 22 have been amended. Accordingly, claims 3, 4, 6, 8, 10, 11, 12 and 22 are pending in the present application.

Claims 3, 6 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,779,925 to Black in view of U.S. Patent No. 6,320,483 to Raty et al. Claims 8 and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,293,141 to Kobayashi et al. in view of Black and Raty et al. Applicants respectfully traverse these rejections.

Among the limitations of independent claims 3, 8, 10-12 and 22 which are neither disclosed nor suggested in the prior art of record is a coaxial resonator wherein “wherein a thickness of the conductor layers and a thickness of the dielectric layers are determined by phase constants of the lines, the phase constants of the lines being substantially equal”. Support for this amendment can be found in the specification at page 14, lines 3-9.

None of the cited references, either alone or combined, teach or suggest that the thickness of the conductor layers and dielectric layers in the inner conductor is based on the phase constants of the lines, and/or that the phase constants of the lines of the inner conductor are substantially equal.

As pointed out on page 2 of the Office Action, Black teaches that the dielectric constant of the dielectric materials between the conductors has an effect on the thickness of the materials used. However, there is nothing in Black which teaches or even remotely suggests that the thickness of the conductor layers and dielectric layers in the inner conductor is based on the phase constants of the lines, or that the phase constants of the lines of the inner conductor are substantially equal to each other.

Raty et al. does not remedy any of the deficiencies of Black. There is nothing within Raty et al. which teaches or even remotely suggests that the thickness of the conductor layers and dielectric layers in the inner conductor is based on the phase constants of the lines, or that that the phase constants of the lines of the inner conductor are substantially equal to each other.

Kobayashi et al. does not remedy any of the deficiencies of Black and/or Raty et al. Nowhere within Kobayashi et al. is it disclosed or suggested, to have the phase constants of the lines of an inner conductor substantially equal, let alone basing the thickness of the conductor layers and the thickness of the dielectric layers on the phase constants of the lines as required by independent claims 3, 8, 10-12 and 22.

Therefore, even if one were to combine the teachings of Kobayashi et al., Black and/or Raty et al., one would not arrive at the present invention as defined in independent claims 3, 8, 10-12 and 22. Accordingly, it is respectfully submitted that independent claims 3, 8, 10-12 and 22 patentably distinguish over the art of record, and reconsideration and withdrawal of this rejection is respectfully requested.

Claims 4 and 6 depend either directly or indirectly from independent claim 3 and include all of the limitations found therein as well as additional limitations which, in combination with the limitations of independent claim 3, are neither disclosed nor suggested in the prior art of record. Accordingly, claims 4 and 6 are likewise patentable.

Claims 3, 6, 8, 10-12 and 22 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-12 of U.S. Patent No. 6,556,101 in view of Black and Raty et al. Applicants respectfully traverse this rejection.

None of claims 1-12 of U.S. Patent No. 6,556,101 teach or suggest that the thickness of the conductor layers and dielectric layers in the inner conductor is based on the

phase constants of the lines, or that that the phase constants of the lines of the inner conductor are substantially equal.

As described above, the combination of Black and Raty et al. also fails to teach or suggest to have the phase constants of the lines of an inner conductor substantially equal, let alone basing the thickness of the conductor layers and the thickness of the dielectric layers on the phase constants of the lines as required by independent claims 3, 8, 10-12 and 22.

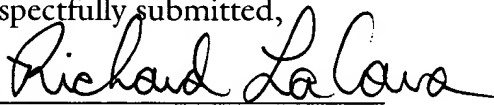
Therefore, even if one were to combine the teachings of claims 1-12 of U.S. Patent No. 6,556,101, Black and Raty et al., one would not arrive at the present invention as defined in claims 3, 6, 8, 10-12 and 22. Accordingly, the rejection of claims 3, 6, 8, 10-12 and 22 under the judicially created doctrine of obviousness-type double patenting must be withdrawn.

In view of the foregoing, favorable consideration of the amendments to claims 3, 6, 8, 10, 11, 12 and 22, and allowance of the present application with claims 3, 4, 6, 8, 10-12 and 22 is respectfully and earnestly solicited.

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Respectfully submitted,

By



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